Olson

ME-63

S-METER CONVERTER

THE OLSON TRADE MARK MEANS QUALITY

The "S" meter provides a visual means of determining whether or not the receiver is properly tuned, as well as an indication of the relative signal strength. The "S" meter circuit consists of a D.C. milliammeter connected in series with the plate lead to the 2nd or last I.F. stage in the receiver, the grid of which is controlled by AVC voltage. Since the plate current of this tube varies with the strength of the incoming signal, the meter will indicate relative signal strength. The "S" meter is calibrated in microvolts ("S" units from 1-10 and 1-5) and in decibels S-9 to +30 DB.

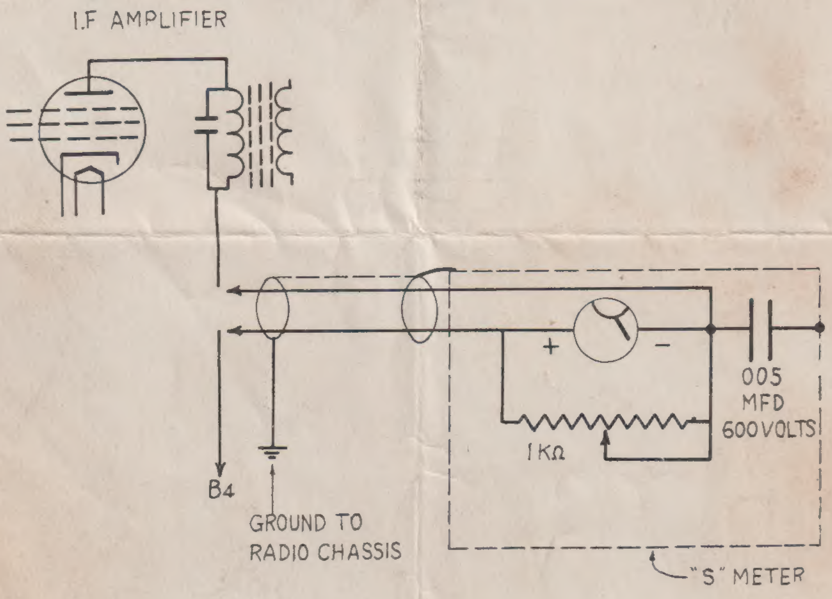
The limitations of the microvolt scale should be fully appreciated before any assumption as to the indicated signal voltages is accepted. The meter indicates only approximate microvolts of signal strength and operates best when connected to receiver two or more I.F. stage. The indication will vary with the type and of the receiver used.

Variations in the microvolt indications between receivers is not indicative of the overall sensitivity but is caused by normal tolerances in vacuum tube conductances which are reflected in the AVC/S meter curve. Thus, two receivers with identical sensitical could, under the same signal conditions indicate signal levels of 5 microvolts and 25 microvolts and yet each be a perfect receiver.

The "S" meter has two adjustments, one electrical and the other mechanical. The mechanical adjustment can be made with "S" disconnected from circuit and rotating adjustment screw on front panel of "S" until needle is in line with right hand index mark.

The electrical adjustment is made after receiver has been allowed to warm up and meter adjustment knob is rotated until needle is in line with right hand index mark.

The schematic below shows how to connect the "S" meter to your receiver. The portion surrounded by the dotted lines is the "S" meter. The remainder of circuit is representative of most receivers.



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